IN THE CLAIMS:

1. (Previously Presented) A method of processing data defining a plurality of first polygons and texture data therefor, to generate data defining a texture map, the method comprising:

determining a respective measure of the uniformity of the texture data for each first polygon;

defining a respective second polygon in a two-dimensional area for each first polygon to store texture data therefrom, such that each second polygon is defined with an area dependent upon the measure of the uniformity of the texture data determined for the corresponding first polygon and such that the area increases as the uniformity of the texture data to be stored therein decreases; and

generating texture data for the second polygons in dependence upon the texture data for the first polygons.

2. (Previously Presented) A method according to claim 1, wherein the processing to determine a measure of the uniformity of the texture data for a first polygon comprises processing the texture data to determine the measure in dependence upon the content of the texture data.

Claim 3.   (Cancelled).

4.   (Previously Presented) A method according to claim 2, wherein each measure of the uniformity of the texture data for a first polygon is determined in dependence upon color component values of the texture data.

5.   (Previously Presented) A method according to claim 2, wherein each measure of the uniformity of the texture data for a first polygon is determined in dependence upon greyscale values of the texture data.

6.   (Previously Presented)   A method according to claim 2, wherein each measure of the uniformity of the texture data for a first polygon is determined by calculating a measure of an extent of differences in values of the texture data.

7.   (Original) A method according to claim 6, wherein the texture data is filtered and a measure of the extent of differences in the filtered texture data values is calculated.

8.   (Previously Presented)   A method according to claim 2, wherein each measure of the uniformity of the texture data for a first polygon is determined in dependence upon the number of colors in the texture data.

9.   (Previously Presented)   A method according to claim 2, wherein each measure of the uniformity of the texture data for a first polygon is determined in dependence upon edges in the texture data.

10.   (Previously Presented)   A method according to claim 1, wherein the processing to determine a measure of the uniformity of the texture data for each first polygon comprises processing user input signals conveying a uniformity measure for each of at least some of the first polygons.

11.   (Original) A method according to claim 1, wherein the second polygons are defined in the two-dimensional area such that the connectivity of the second polygons is different to the connectivity of the first polygons.

12.   (Original) A method according to claim 1, wherein the first polygons and second polygons comprise triangles.

13.   (Original) A method according to claim 1, wherein the first polygons and second polygons comprise groups of triangles.

14.   (Original) A method according to claim 1, further comprising generating a signal carrying data defining the generated texture map.

15.   (Original) A method according to claim 1, further comprising making a recording either directly or indirectly of data defining the generated texture map.

16.   (Previously Presented)   A method of processing data defining a three-dimensional computer model comprising a mesh of polygons and texture data therefor, to generate data defining a texture coordinate map, the method comprising:

determining, for each of at least some of the polygons in the three-dimensional computer model, a respective measure of the storage area to be allocated in the texture coordinate map to the texture data for the polygon such that a relatively large storage area is allocated for texture data with a relatively low level of uniformity and a relatively small storage area is allocated for texture data with a relatively high level of uniformity; and

generating a texture coordinate map by defining a respective polygon in a two-dimensional area for each of the at least some polygons in the three-dimensional computer model to store texture data therefor, such that each polygon is defined with an area dependent upon the storage area measure determined for the corresponding polygon from the three-dimensional computer model.

17.   (Previously Presented)   A method of processing data defining a first texture map comprising a plurality of first polygons and texture data therefor in a first two-dimensional area, to generate data defining a texture coordinate map for a second texture map of smaller area than the first texture map, the method comprising:

determining, for each of at least some of the polygons in the first texture map, a respective measure of the storage area to be allocated to the texture data for the polygon in the second texture map such that a relatively large storage area is allocated for texture data with a relatively low level of uniformity and a relatively small storage area is allocated for texture data with a relatively high level of uniformity; and

generating a texture coordinate map by defining a respective second polygon in a second two-dimensional area for each of the at least some of the first polygons, such that the area of the second two-dimensional area is less than the area of the first two-dimensional area, and such that each second polygon is defined with an area dependent upon the storage area measure determined for the corresponding first polygon.

18.   (Original) A method according to claim 16 or claim 17, further comprising generating texture data for each polygon in the texture coordinate map from the texture data of the corresponding starting polygon.

19.   (Original) A method according to claim 16 or claim 17, further comprising generating a signal carrying data defining the generated texture coordinate map.

20.   (Original) A method according to claim 16 or claim 17, further comprising making a recording either directly or indirectly of data defining the generated texture coordinate map.

21.   (Previously Presented)   An apparatus for processing data defining a plurality of first polygons and texture data therefor, to generate data defining a texture map, the apparatus comprising:

a uniformity measure generator operable to determine a respective measure of the uniformity of the texture data for each first polygon;

a polygon definer operable to define a respective second polygon in a two-dimensional area for each first polygon to store texture data therefrom, such that each second polygon is defined with an area dependent upon the measure of the uniformity of the texture data determined by the uniformity measure generator for the corresponding first polygon and such that the area increases as the uniformity of the texture data to be stored therein decreases; and

a texture data generator operable to generate texture data for the second polygons in dependence upon the texture data for the first polygons.

22.   (Previously Presented)   An apparatus according to claim 21, wherein the uniformity measure generator is operable to process the texture data to determine each uniformity measure in dependence upon the content of the texture data.

Claim 23.   (Cancelled).

24.   (Previously Presented)   An apparatus according to claim 22, wherein the uniformity measure generator is operable to determine each measure of the uniformity of the texture data for a first polygon in dependence upon color component values of the texture data.

25.   (Previously Presented)   An apparatus according to claim 22, wherein the uniformity measure generator is operable to determine each measure of the uniformity of the texture data for a first polygon in dependence upon greyscale values of the texture data.

26.   (Previously Presented)   An apparatus according to claim 22, wherein the uniformity measure generator is operable to determine each measure of the uniformity of the texture data for a first polygon by calculating a measure of an extent of differences in values of the texture data.

27.   (Previously Presented)   An apparatus according to claim 26, wherein the uniformity measure generator is operable to filter the texture data and to calculate a measure of the extent of differences in the filtered texture data values.

28.   (Previously Presented)   An apparatus according to claim 22, wherein the uniformity measure generator is operable to determine each measure of the uniformity of the texture data for a first polygon in dependence upon the number of colors in the texture data.

29.   (Previously Presented)   An apparatus according to claim 22, wherein the uniformity measure generator is operable to determine each measure of the uniformity of the texture data for a first polygon in dependence upon edges in the texture data.

30.   (Previously Presented)   An apparatus according to claim 21, wherein the uniformity measure generator is operable to determine a measure of the uniformity of the texture data for each first polygon by processing user input signals conveying a measure of uniformity for each of at least some of the first polygons.

31.   (Previously Presented) An apparatus according to claim 21, wherein the polygon definer is operable to define the second polygons in the two-dimensional area such that the connectivity of the second polygons is different from the connectivity of the first polygons.

32.   (Previously Presented) An apparatus according to claim 21, wherein the first polygons and second polygons comprise triangles.

33.   (Previously Presented) An apparatus according to claim 21, wherein the first polygons and second polygons comprise groups of triangles.

34.   (Previously Presented)   An apparatus for processing data defining a three-dimensional computer model comprising a mesh of polygons and texture data therefor, to generate data defining a texture coordinate map, the apparatus comprising:

a storage area calculator operable to determine, for each of at least some of the polygons in the three-dimensional computer model, a respective measure of the storage area to be allocated in the texture coordinate map to the texture data for the polygon, the storage area calculator being arranged to allocate a relatively large storage area for texture data with a relatively low level of uniformity and a relatively small storage area for texture data with a relatively high level of uniformity; and

a polygon definer operable to generate a texture coordinate map by defining a respective polygon in a two-dimensional area for each of the at least some polygons in the three-dimensional computer model to store texture data therefor, such that each polygon is defined with an area dependent upon the storage area measure determined for the corresponding polygon from the three-dimensional computer model.

35.   (Previously Presented)   An apparatus for processing data defining a first texture map comprising a plurality of first polygons and texture data therefor in a first two-dimensional area, to generate data defining a texture coordinate map for a second texture map of smaller area than the first texture map, the apparatus comprising:

a storage area calculator operable to determine, for each of at least some of the first polygons in the first texture map, a respective measure of the storage area to be allocated

to the texture data for a polygon in the second texture map, the storage area calculator being arranged to allocate a relatively large storage area for texture data with a relatively low level of uniformity and a relatively small storage area for texture data with a relatively high level of uniformity; and

a polygon definer operable to generate a texture coordinate map by defining a respective second polygon in a second two-dimensional area for each of the at least some first polygons, such that the area of the second two-dimensional area is less than the area of the first two-dimensional area, and such that each second polygon is defined with an area dependent upon the storage area measure determined for the corresponding first polygon.

36.   (Previously Presented) An apparatus according to claim 30 or claim 31, further comprising a texture data generator operable to generate texture data for each polygon in the texture coordinate map from the texture data of the corresponding starting polygon.

37.   (Previously Presented)   An apparatus for processing data defining a plurality of first polygons and texture data therefor, to generate data defining a texture map, the apparatus comprising:

uniformity measure generating means for determining a respective measure of the uniformity of the texture data for each first polygon;

means for defining a respective second polygon in a two-dimensional area for each first polygon to store texture data therefrom, such that each second polygon is defined

with an area dependent upon the measure of the uniformity of the texture data determined by the

uniformity measure generating means for the corresponding first polygon and such that the area

increases as the uniformity of the texture data to be stored therein increases; and

means for generating texture data for the second polygons in dependence

upon the texture data for the first polygons.

38.   (Previously Presented)   An apparatus for processing data defining a

three-dimensional computer model comprising a mesh of polygons and texture data therefor, to

generate data defining a texture coordinate map, the apparatus comprising:

storage area calculation means for determining, for each of at least some of

the polygons in the three-dimensional computer model, a respective measure of the storage area

to be allocated in the texture coordinate map to the texture data for the polygon, the storage area

calculation means being arranged to allocate a relatively large storage area for texture data with a

relatively low level of uniformity and a relatively small storage area for texture data with a

relatively high level of uniformity; and

means for generating the texture coordinate map by defining a respective

polygon in a two-dimensional area for each of the at least some polygons in the

three-dimensional computer model to store texture data therefor, such that each polygon is

defined with an area dependent upon the storage area measure determined for the corresponding

polygon from the three-dimensional computer model.

39.   (Previously Presented)   An apparatus for processing data defining a first texture map comprising a plurality of first polygons and texture data therefor in a first two-dimensional area, to generate data defining a texture coordinate map for a second texture map of smaller area than the first texture map, the apparatus comprising:

storage area calculation means for determining, for each of at least some of the first polygons in the first texture map, a respective measure of the storage area to be allocated to the texture data for a polygon in the second texture map, the storage area calculation means being arranged to allocate a relatively large storage area for texture data with a relatively low level of uniformity and a relatively small storage area for texture data with a relatively high level of uniformity; and

means for generating a texture coordinate map by defining a respective second polygon in a second two-dimensional area for each of the at least some first polygons, such that the area of the second two-dimensional area is less than the area of the first two-dimensional area, and such that each second polygon is defined with an area dependent upon the storage area measure determined for the corresponding first polygon.

40.   (Previously Presented)   A storage medium storing computer program instructions for programming a programmable processing apparatus to become operable to perform a method in accordance with any one of claims 1, 2 and 4 to 17.

41.   (Previously Presented) A physically-embodied computer program product including computer program instructions in computer-readable form, including computer program instructions for programming a programmable processing apparatus to become operable to perform a method in accordance with any one of claims 1, 2 and 4 to 17.